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# Aromatic hydrocarbons — Sampling

Hydrocarbures aromatiques — Échantillonnage

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### Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1995 was developed by Technical Committee ISO/TC 78, *Aromatic hydrocarbons*, and was circulated to the member bodies in November 1979.

It has been approved by the member bodies of the following countries :

Australia Austria Chile Czechoslovakia France Germany, F. R. Hungary India Italy Japan Korea, Rep. of Mexico Netherlands Philippines Poland South Africa, Rep. of USSR

The member body of the following country expressed disapproval of the document on technical grounds :

United Kingdom

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#### INTERNATIONAL STANDARD

## Aromatic hydrocarbons — Sampling

#### 0 Introduction

This International Standard is one of a series dealing with the sampling, testing and specification of aromatic hydrocarbons.

As most aromatic hydrocarbons are similar to petroleum products, many of the sampling procedures used for the latter are equally applicable to the former. Hence, parts of the text in this International Standard are identical with that in ISO 3170, *Petroleum products — Liquid hydrocarbons — Manual sampling.* Similarly, as all aromatic hydrocarbons are flammable, and most of them are toxic, the relevant safety precautions described in ISO 3165, *Sampling of chemical products for industrial use — Safety in sampling*, have also been incorporated.

#### 1 Scope and field of application

**1.1** This International Standard specifies sampling procedures to be used for obtaining samples of liquid aromatic hydrocarbons from fixed tanks, railcars, road vehicles, barges and drums, or from liquids being pumped in pipelines.

**1.2** The samples taken by the procedures specified are intended to be used to determine :

- a) quality;
- b) whether contaminants are present;
- c) the degree of homogeneity of a batch.

The information obtained may be used for either qualitative or quantitative assessment of the batch being sampled.

**1.3** When a batch of materials is to be received or consigned, there are often the alternative possibilities of sampling from a tank or from a pipeline during the transfer operation.

Pipeline sampling, manual or automatic, as distinct from tank sampling, is generally used for the following reasons :

a) when the contents of a tank are likely to suffer from a marked lack of homogeneity, including the presence of two layers with different densities;

b) for monitoring material that is being pumped through a pipeline;

c) for monitoring the performance of in-line blending systems, and for determining the properties of a batch of product being made with an in-line blending system.

It is often necessary to employ both tank and pipeline sampling covering particular operations.

1.4 Pipeline sampling may be manual or automatic.

For automatic pipeline sampling, reference should be made to ISO 3171.

Automatic procedures should be employed if there is a possibility that the liquid flowing through the pipeline is non-homogeneous.

#### 2 References

ISO 2859, Sampling procedures and tables for inspection by attributes.

ISO 3171, Petroleum products – Liquid hydrocarbons – Automatic pipeline sampling.

#### 3 Definitions

**3.1 aromatic hydrocarbons** : Benzene and its homologues, pure or commercially pure, isolated or in mixtures, and whether or not containing impurities in a substantial proportion, provided that the aromatic-type products predominate in the bulk of the product.

#### 3.2 Terms related to samples

**3.2.1** sample : One or more items taken from a population and intended to provide information on the population and possibly to serve as a basis for a decision on the population or on the process which had produced it.

**3.2.2 representative sample** : A sample assumed to have the same composition as the material sampled when the latter is considered as a homogeneous whole.

**3.2.3 bulk sample; gross sample :** The total material obtained by the sampling procedure.

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